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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,427	03/28/2001	Veronica A. Nelson	10992847-1	5669

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

HSIEH, SHIH WEN

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,427

Applicant(s)

NELSON ET AL.

Examiner

Shih-wen Hsieh

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2-18-2004 (RCE).
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-14, 16, 17 and 20-46 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 4, 6-14, 16, 17 and 20-24 is/are allowed.
6) ☒ Claim(s) 5, 25-31, 45 and 46 is/are rejected.
7) ☒ Claim(s) 32-44 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 15 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on Feb. 18, 2004 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 25 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito et al. (JP 405084925 A).

In regard to:

Claim 25:

Saito et al. teach:

A print cartridge system, comprising:

a print cartridge (11, fig. 1) including nozzles (44, fig. 4) through which ink is jetted, refer to [0014];

a seal (17, fig. 1) attached to the print cartridge and disposed over the nozzles, the seal being adhesively attached to the print cartridge and forming a moisture impermeable barrier over each nozzle preventing flow of ink and moisture out of each nozzle, refer to [0012], in which "Water resistance is good" in line three (3) corresponds to "a moisture impermeable barrier" in the claim; and also refer to page 22/55 [EFFECT].

Claim 45:

Saito et al. further teach:

wherein the print cartridge includes electrical contacts (16, fig. 1) and the seal forms a moisture impenetrable barrier over the electrical contacts (claim 45), refer to [0035].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. in view of Smith (US Pat. No. 4,490,925) and further in view of Carlotta (US Pat. No. 5,400,060).

Saito et al. teach:

A laminate for sealing print cartridges, comprising:

a base film (20, fig. 2), refer to [0035] and [0036].

The device of Saito et al. DIFFERS from claim 5 in that it does not teach:

the base film is a non-woven thin base film having crevices therein.

Smith teaches a low permeability spiral fabric, which is a non-woven fabric (22, 24, fig. 4) and its detail structure is shown in fig. 1-3 and 7. This non-woven fabric is used in a dryer section of a papermaking machine, and has crevice spaces (40 and 42, fig. 7), refer to col. 5, lines 24-42.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Saito et al. to use the non-woven fabric as taught by Smith as the base film of the laminate for the purpose of

providing hidden sources of air flow by these crevices spaces, which can add significantly to the total flow of air through the fabric.

Saito et al. further teach an adhesive tape (17, fig. 1) and its composition is as shown in fig. 2. In fig. 2, it can be seen the adhesive tape consists of two layers: 1) 20 is the base layer and 2) 21 is the adhesive layer, which Saito et al. do not specify is a hot melt adhesive layer. Therefore,

The device of Saito et al. as modified in view of Smith DIFFERS from claim 5 in that it does not teach:

the laminate has a hot-melt layer.

Carlotta teaches a removable seal for the face of a print head, the seal is as shown in figs. 2 and 3. In fig. 3, 30 is the base film (or base layer), and 32 is the adhesive layer, which is hot melt adhesive layer, refer to col. 3, lines 46-59; and col. 2, lines 16-20.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Saito et al. as modified in view of Smith to use their adhesive layer the hot melt type as taught by Carlotta for the purpose of this hot melt adhesive becoming flowable upon application of heat but seal the print head upon cooling.

The device of Saito et al. as modified in view of Smith further in view of Carlotta DIFFERS from claim 5 in that it does not teach:

said hot-melt flows into the crevices in the base film and mechanically bonds the film and hot-melt layer together.

As discussed above, the crevices in the combination of Saito et al. as modified in view of Smith further in view of Carlotta allow air to flow.

Therefore it would have been an obvious matter that melted adhesive will flow through those crevices provided in the base film and as a result of such flowing, the hot-melt layer bonds to the base.

6. Claims 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. in view of Carlotta (US Pat. No. 5,400,060).

In regard to:

Claim 26:

Saito et al. teach an adhesive tape (17, fig. 1) and its composition is as shown in fig. 2. From fig. 2, one can find out that the adhesive tape consists of two layers: 1) 20 is the base layer and 2) 21 is the adhesive layer, which Saito et al. do not specify it is a hot melt adhesive layer. Therefore,

The device of Saito et al. DIFFERS from claim 26 in that it does not teach:
wherein the seal comprises a hot melt adhesive layer adhesively attached to the print cartridge and forming a barrier over each nozzle preventing flow of ink out of each nozzle.

Carlotta teaches a removable seal for the face of a print head, the seal is as shown in figs. 2 and 3. In fig. 3, 30 is the base film (or base layer), and 32 is the adhesive layer, which is hot melt adhesive layer, refer to col. 3, lines 46-59; and col. 2, lines 16-20.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Saito et al. to use their adhesive layer the hot melt type as taught by Carlotta for the purpose of this hot melt adhesive becoming flowable upon application of heat but seal the print head upon cooling.

Claim 27:

Saito et al. in the combination of Saito et al. as modified in view of Carlotta further teach:

wherein the hot melt adhesive layer is moisture retardant and forms a moisture impenetrable barrier over each nozzle preventing flow of ink and moisture out of each of the nozzles, refer to page 22/55 [EFFECT].

Claim 28:

Saito et al. in the combination of Saito et al. as modified in view of Carlotta further teach:

wherein the hot melt adhesive layer is a moisture retardant synthetic rubber hot melt adhesive layer, refer to [0015].

Claims 29 and 30:

wherein the seal further comprises a non-woven base film attached to the hot melt adhesive layer (claim 29); and

wherein the non-woven base film has crevices and the hot melt adhesive layer includes hot melt adhesive material disposed in the crevices of the non-woven base film (claim 30).

Rejection:

These two claims are rejected on the basis as set forth for claim 5 discussed above.

Claim 31:

The device of Saito et al. as modified in view of Carlotta DIFFERS from claim 31 in that it does not teach:

wherein the non-woven base film is a spunbonded olefin film.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to select a known available material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use, and in this case such as a spunbonded olefin film selected by the instant application, refer to MPEP 2144.07.

7. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al.

Saito et al. teach electrical contacts (16) in their fig. 1. However, electrical leads were not shown in fig. 1.

Therefore the device of Saito et al. DIFFERS from claim 46 in that it does not teach:

wherein the print cartridge includes electrical leads and the seal forms a moisture impenetrable barrier over the electrical leads.

An electrical lead emanates from a contact pad so as to carry signal to another place via the lead is an obvious design in an electronic circuitry.

Therefore it would have been an obvious matter that an electrical lead associated with a electrical contact pad will be a fundamental design in an electronic circuitry, and while the Saito et al.'s seal seals the pads, in the meantime, the seal will also seal its associated lead.

Allowable Subject Matter

8. Claims 4, 6-14, 16, 17 and 20-24 are allowed.
9. Claims 32-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
10. The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claims 32-44 is the inclusion of the limitation of, wherein the seal further comprises a moisture retardant base film disposed over the hot melt adhesive layer. It is this limitation found in each of the claims, as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Art Unit: 2861

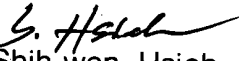
11. Allowability to claim 5 is withdrawn, and rejections to this claim and claims 29 and 30 are set forth above.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-wen Hsieh whose telephone number is 571-272-2256. The examiner can normally be reached on 7:30AM -5:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S D Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SHIH-WEN HSIEH
PRIMARY EXAMINER


Shih-wen Hsieh
Primary Examiner
Art Unit 2861

SWH


May 26, 2004